

REMARKS

In response to the above-identified Office Action, Applicant has amended claims 8 and 16 and cancelled claims 9 and 17. Particularly, claims 8 and 16 have been amended to include the limitations of now cancelled claims 9 and 17, respectively, wherein the amended claims now describe a helical antenna comprising a core made of insulative material, and having a conductive helical line printed on a surface of the core; a feeder formed on a lower part of the core and electrically connected with an internal circuit; and a molded cover made of insulative material and covering an outer part of the core.

Applicant thanks the Examiner for consideration and allowance of claims 1-7, 13-15 and 18-27 of the present application.

35 U.S.C. §102

Claims 8-12, 16 and 17 are rejected under 35 U.S.C. §102(b) as being anticipated by Terret et al., U.S. Patent No. 5,255,005.

It is appreciated that anticipation requires absolute identity in structure between the claimed structure and a structure disclosed in a single reference. Applicant respectfully submits that the dual layer resonant quadrifilar helix antenna of the '005 reference does not disclose every element of the claimed invention.

The Terret et al. reference discloses an antenna structure formed by two concentric quadrifilar helices wound around coaxial cylindrical insulator supports with distinct diameters D1 and D2. (See Figure 1; col. 4, ln. 45-49) Applicant submits that what is being asserted as a cover 14 in the Office Action on page 2, paragraph 3 is clearly one of the two insulator supports used to construct the dual quadrifilar helical antenna system and not a molded insulative cover as according to the present invention.

Claims 8 and 16 have been amended to describe a helical antenna having an externally "... molded cover made of insulative material and covering an outer part of the core.", of the helical antenna. (See page 13, lines 28-30) The cover of Applicant's invention operates as a protective cover against potential short circuiting due to contacts with conductive elements as well as a protective barrier against contaminants such as dirt, dust and moisture.

The element 14 of the '005 reference is clearly a second helical antenna concentrically formed around, and spaced apart from, a first helical antenna 13 wherein both operate together to form a dual frequency antenna. The spacing between the cylindrical supports for each antenna is important in controlling the electromagnetic coupling effects between the two overlapping antennas wherein such coupling has a direct impact on antenna operation, antenna radiation/coverage pattern, and directionality. The cover of Applicant's invention does not affect the operation of the antenna in any such manner.

As the '005 reference does not disclose a helical antenna having a molded cover of insulative material that covers an outer part of the core, Applicant submits that this reference should not be used to form the basis of an anticipation rejection. As such, Applicant respectfully requests that this be withdrawn as a basis for rejection.

Claim 8 has been rejected under 35 U.S.C. §102(b) as being anticipated by Sydor, U.S. Patent No. 5,479,182.

The Sydor reference discloses an active antenna comprising a ground plane and a conductor wound upon a substrate in the shape of a tapered helix. The antenna is rotatably mounted upon a support member which makes the antenna mechanically steerable when mounted upon a vehicle for communication via satellite or mobile radio communications or other such signals. However, the Sydor reference does not disclose a helical antenna having a

molded cover made of insulative material and covering an outer part of the core as according to claim 8.

Applicant submits that because the cover limitation of claim 8 is not disclosed by the '182 reference, the reference should not be used to form the basis of an anticipation rejection. Accordingly, Applicant respectfully requests that this be withdrawn as a basis for rejection.

From the foregoing, Applicant submits that the claims of the present invention embody patentable subject matter and as such it is respectfully requested that such action toward these ends be taken.

Respectfully submitted,



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